

REMARKS

1. After entry of this paper, claims 7-20 are pending.
Reconsideration of this application is respectfully requested.
2. Claims 1-3, 5-9, 11, and 12 stand rejected under 35 USC 102(e) as being anticipated by U.S. Patent 5,748,262 to Boie.

Claims 1-3, 5, and 6 have been canceled.

Independent claim 7 has been amended to recite:

A frequency converter for converting an intermediate-frequency television signal (s2) to a low frequency comprising:

a mixer having a first and second inputs and an output;

a first filter being coupled to said first input of said mixer and adapted to provide an intermediate-frequency television signal (s2) thereto, the first filter at least partially attenuating upper and lower adjacent channels;

an oscillator coupled to said second input of said mixer and adapted to provide an oscillator-signal (u) lying in a range of ~~an~~ said lower adjacent channel; and

a second filter coupled to said output of said mixer, said second filter having a high-pass selectivity skirt for attenuating said adjacent channels to a negligible residual amplitude.

In contrast to claim 7, which recites "... the first filter at least partially attenuating upper and lower adjacent channels . . . ," the upper skirt of the first filter in Boie has to be strictly at the upper level of the desired channel and must have sharp flank to cut off, e.g., the sound band of the adjacent upper channel 6 in the high IF frequency range. If the first filter in Boie does not suppress the sound band properly, this sound band will occur, as shown in FIG. 3D, left to the lower side 6a of the resulting band of the desired channel, where it can not be attenuated by the second filter (dashed line 13 in FIG. 3D).

In accordance with claim 7, however, the adjacent channels are easily attenuated by the second filter.

In further contrast, the second filter 13 disclosed in Boie has a high frequency band-pass slope to cut away the residue 9 of an adjacent channel N-1. Since the second filter of Boie removes the adjacent channel by its low-pass selectivity skirt (15), which is located above the highest frequency of the desired channel, the selection must operate at a much higher frequency range than in the presently claimed frequency converter, which requires a second filter having a high-pass selectivity skirt for attenuating the adjacent channels to a negligible residual amplitude. It is more desirable to use the low frequency of the high-pass filter for attenuation, because a steep slope is easier to realize if the cutoff frequency is low. The same steepness for higher cutoff frequencies, such as in the second filter 13 of Boie, requires a filter design of higher order.

Since Boie fails to disclose each and every element of each of independent claim 7 as presently amended, Bois does not anticipate the same. Dependent claims 8, 9, 11, and 12 are not anticipated by Boie for at least the same reasons set forth with respect to claim 7.

In view of the foregoing, withdrawal of this rejection is respectfully urged.

3. Claims 4, 10, and 13-20 und 35 U.S.C. 103(a) as being unpatentable over of Boie.
Claim 4 has been canceled.

Independent claim 13 has been amended to recite:

A method for processing an intermediate-frequency television signal comprising the steps of:

filtering an intermediate-frequency signal with a first filter
that at least partially attenuates upper and lower adjacent channels;

generating an oscillator signal (u), the oscillator signal (u)
lying in a range of said lower adjacent channel;

mixing said filtered intermediate-frequency signal and said oscillator signal (u);

filtering said mixed signals using a second filter having a high-pass selectivity skirt to attenuate said adjacent channels to a negligible residual amplitude; and,

separating said filtered mixed signals into visual and audible components for reproduction.

In contrast to claim 13, which recites "... a first filter that at least partially attenuates upper and lower adjacent channels ...," the upper skirt of the first filter in Boie has to be strictly at the upper level of the desired channel and must have sharp flank to cut off, e.g., the sound band of the adjacent upper channel 6 in the high IF frequency range. If the first filter in Boie does not suppress the sound band properly, this sound band will occur, as shown in FIG. 3D, left to the lower side 6a of the resulting band of the desired channel, where it can not be attenuated by the second filter (dashed line 13 in FIG. 3D).

In accordance with claim 13, however, the adjacent channels are easily attenuated by the second filter.

In further contrast, the second filter 13 disclosed in Boie has a high frequency band-pass slope to cut away the residue 9 of an adjacent channel N-1. Since the second filter of Boie removes the adjacent channel by its low-pass selectivity skirt (15), which is located above the highest frequency of the desired channel, the selection must operate at a much higher frequency range than in the presently claimed invention, which requires a second filter comprising a high-pass selectivity skirt to attenuate the adjacent channels to a negligible residual amplitude.

Since Boie fails to arrive at the invention of claim 13, claim 13 is patentable over Bois. Dependent claims 14-20 are patentable over Boie for at least the same reasons set forth with respect to claim 13. Dependent claim 10 is patentable over Boie for at least the same reasons set forth with respect to claim 7.


In view of the foregoing, withdrawal of this rejection is respectfully urged.

4. Favorable reconsideration of this application is respectfully requested as it is believed that all outstanding issues have been addressed herein and, further, that claims 7-20 are in condition for allowance, early notification of which is earnestly solicited.

Should there be any questions or matters whose resolution may be advanced by a telephone call, the examiner is cordially invited to contact applicants' undersigned attorney at his number listed below.

5. The Director is hereby authorized to charge the fee for the petition for the one month extension of time, the fee for the RCE, any underpayment of fees, or credit any overpayments, to Deposit Account No. 04-1679.

Respectfully submitted,



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